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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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EXAMINER	
STOYNOV, STEFAN	
ART UNIT	**PAPER NUMBER**
2116	

DATE MAILED: 12/30/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/027,652	COOPER, BARNES	
	Examiner	Art Unit	
	Stefan Stoynov	2116	

-- The MAILING DATE f this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☐ Responsive to communication(s) filed on _____.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-30* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-4,6-8,11-13,16-18,21-23 and 26-28* is/are rejected.

7)☒ Claim(s) *5,9,10,14,15,19,20,24,25,29 and 30* is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

> The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 3, 4, 13, and 23 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claims 3, 4, 13 and 23 depend on claims 1, 11, and 21 where alternative language is used to describe updating the performance sate structure using either a processor performance table or a default table.

Whereas, claims 3, 13, and 23 imply the presence for both a processor performance table and default table which contradicts with the parent claims. Accordingly, it is unclear what elements are required by the claims.

Claim 4 is similarly indefinite being dependent on claim 3.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

The factual inquiries set forth in *Graham* **v.** *John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

Claims 1, 2, 6, 11, 12, 16, 21, 22, and 26 are rejected under 35 U.S.C. 103(a) as being unpatentable over Chang in view of Barrus, and further in view of Pole.

Re claims 1, 11, and 21, Chang discloses a method, computer program product, and a system comprising:

a processor and a memory coupled to the host (Fig.1);

reading a performance information associated with a processor (column 3, lines 20 and 21, column 3, lines 34 and 35, FIG. 2);

locating a processor performance table corresponds to the performance information (column 2, lines 5-7), the performance table including a plurality of performance parameters to control performance of the processor (column 2, lines 60-65);

Chang does not specifically address implementing the method with computer readable program code (program). However, the method consists of operating steps executed by a microprocessor (column 3, lines 18 and 19), which implies execution of a program.

Chang fails to disclose the use of performance state structure and updating the performance state structure with the processor performance table.

Barrus teaches a power management utility program (column 2, line 26) using an application requirement data structure which contains the hardware performance

parameters that enable each of the applications on the computer to run at desired level (column 4 lines 62-67, column 5, lines 1-3). Barrus further teaches updating the hardware performance parameters in the data structure (column 9, line 1-17). In Barrus, the power management utility program incorporating the application requirement data structure assists the user in selecting hardware performance settings to optimize battery life and also to monitor whether the settings are sufficient to run software applications with desired effectiveness (column 3, line 24-28). It would have been obvious to one of ordinary skill in the art at the time of applicant's invention to use the application requirement data structure, as suggested by Barrus as a performance state (PS) structure in order to update the processor performance table disclosed by Chang.

Chang and Barrus fail to disclose a system management interrupt (SMI) handler executed in response to an SMI causing the processor to invoke the process of getting and updating the performance information.

Pole teaches invoking a SMI handler in response to a system management interrupt (SMI) (paragraph 0037, lines 3-5). In Pole, the generation of SMI notifies the system software of an external power source insertion or extraction (paragraph 0016, lines 5-8). It would have been obvious to one of ordinary skill in the art at the time of applicant's invention to use the SMI handler, as suggested by Pole in order to invoke the process of determining the processor's performance information disclosed by Chang and Barrus.

Re claims 2, 12, and 22, Chang further discloses the method, computer program product, and system wherein the reading of the performance information comprises:

reading one of a maximum performance parameter and a minimum performance parameter (column 4, lines 50-53).

Re claims 6, 16, and 26, Pole further teaches the method, computer program product, and system wherein reading the performance information comprises:

reading a bus ratio parameter (paragraph 0026, lines 6-9) and a voltage identifier (paragraph 0031, lines 3-6), the bus ratio parameter corresponding to an operating frequency (paragraph 0028, lines 9-13), voltage identifier corresponding to an operating power (paragraph 0034, lines 3-7) of the processor.

Claims 7, 17, and 27 are rejected under 35 U.S.C. 103(a) as being unpatentable over Barrus in view of Pole.

Re claims 7, 17, and 27, Barrus discloses a method, computer program, and system comprising:

booting a platform having a processor after a performance state (PS) structure is updated (column 5, lines 16 and 17) and

transitioning to a next performance state based on a performance criteria using the PS structure (column 9, lines 1-11).

Barrus fails to disclose loading an advanced configuration and power management (ACPI) operating system (OS).

Pole teaches the use of ACPI OS (paragraph 0038, lines 24-34). In Pole the location and structure of the control register may be defined under an ACPI object. Further the ACPI objects define the core clock frequencies and supply voltage levels to be used in the different performance states (paragraph 0038, lines 29-34). It would have

been obvious to one of ordinary skill in the art at the time of applicant's invention to incorporate the ACPI OS, as suggested by Pole in the method disclosed by Barrus in order to transition the processor to a next performance state using the ACPI OS.

Re claims 8, 18, and 28, Barrus further discloses the method, computer program product, and system further comprising:

evaluating the PS structure (column 7, lines 55-60).

Allowable Subject Matter

Claims 3, 4, 13, and 23 would be allowable if rewritten to overcome the rejection(s) under 35 U.S.C. 112, 2nd paragraph, set forth in this Office action and to include all of the limitations of the base claim and any intervening claims.

Claims 5, 9, 10, 14, 15, 19, 20, 24, 25, 29, and 30 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

The following is a statement of reasons for the indication of allowable subject matter:

Re claims 14 and 24, the prior art fail to disclose or suggest "parsing a source language code containing the PS structure".

Re claims 9, 19, and 29, the prior art fails to disclose or suggest "comparing the current performance information read from the status register with the PS structure".

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Stefan Stoynov whose telephone number is (571) 272-4236. The examiner can normally be reached on 8:00AM-4:30PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Lynne Browne can be reached on (571) 272-3670. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

LYNNE H. BROWNE
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER ~~3600~~ 2100

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